

**SHAPE OF AN ATOM**—ORNL physicists have discovered that the shape of a uranium-238 atom resembles a misshapen football. This model was constructed to show graphically the atom's shape. Previous to this discovery the atom was visualized as spherical.

## Atom Shape Revisualized By Physicists

The shape of an atom? The atom has always been visualized as spherical. However, particle physicists at Oak Ridge National Laboratory say: "Not so." The uranium atom actually resembles a misshapen football.

A team of physicists, Paul H. Stelson, Francis K. McGowan, Curtis E. Bemis, James L. C. Ford, Russell L. Robinson and William T. Milner, have been bombarding uranium with alpha particles in a Van de Graff accelerator. Their results have enabled them to construct a model of the uranium nucleus — the central part of the atom which constitutes almost all the atom's mass and weight.

Scientists have had a general idea of the nucleus' shape for the past several years, but the ORNL experiments have now defined the shape exactly.

### End over End

In the ORNL experiments, when an alpha particle heads straight for a nucleus, a strong repulsion develops between the two. In order to get as far from the alpha particle as possible, the nucleus turns itself so that its long axis is perpendicular to the incoming particle. This adds energy to the nucleus and starts it tumbling, end over end, like a badly kicked football.

With a magnetic spectrograph, the researchers can determine the amount of tumbling that the nucleus is doing. A spherical nucleus could not be observed to tumble at all, while a greatly elongated nucleus would tumble much more than one only slightly distorted.

### Superheavy Elements

Using a quantitative analysis of the results, the researchers can determine the shape of the nuclei they are testing. They have found that the long axis of the U-238 nucleus is about 35 percent longer than the short axis.

The experiments of Stelson and his colleagues are only a small part in a much larger scientific quest for superheavy elements—as yet undiscovered but which, in theory at least, may exist or could be artificially produced. The team's work provides better information for forecasting the properties of superheavy elements. Thus far, the scientists have studied the nuclei of about a dozen of the heaviest elements, including uranium-234, isotopes of thorium, and the man-made elements, plutonium and curium.

## Oak Ridge Jaycees Choose ORGDP Engineer as 1971's Man-of-the-Year

Frank E. Gethers, an electrical engineer in Separations Systems at the Oak Ridge Gaseous Diffusion Plant, has taken honors as the Jaycee "Outstanding Young Man of the Year." He was named recently at the Oak Ridge Jaycees banquet.

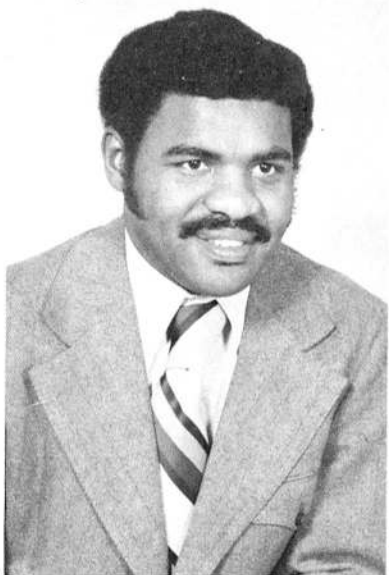
"I'm very surprised," Gethers said. "All I do is what I feel is necessary."

That "necessary" activity takes Gethers into basketball coaching for the junior boys at Mt. Zion Baptist Church, treasurer of the Multiservices Association, as well as its finance committee chairman and tutor. He is a member of the Atomic City Sportsman's Club and is the Methodist Youth Fellowship adviser at Spurgeon Chapel Methodist Church.

The ORGDP engineer holds a B.S. degree from South Carolina State College, Owensboro. He graduated from there in May, 1968, and came with Union Carbide the following month. He is a member of Omega Psi Phi fraternity. His only employment before coming here was summer jobs at the Naval Shipyards in Charleston, S. C.

Gethers, a bachelor, lives at 110 Principia Lane, Oak Ridge. His parents, Mr. and Mrs. Willie Gethers live in Charleston, S. C.

Hobbies find the business engineer on the golf course, in league play in softball, and on the stage as a magician. He is a member of the International Brotherhood of Magicians, and has plied his art at many plant safety meetings.



Frank E. Gethers

## RESA Slates Lecture Series for Spring

The Oak Ridge Branch of Sigma Xi and the Research Society of America (RESA) have begun a series of lectures at the Oak Ridge Jefferson Junior High. The purpose of Sigma Xi-RESA is the promotion and encouragement of original research in science and engineering. Topics and speakers for the series are drawn from the various disciplines of science. All lectures begin at 8 p.m.

The first lecture was given on January 24 by Rudolph Mossbauer, the Nobel Prize winner in physics from Germany. Other lec-

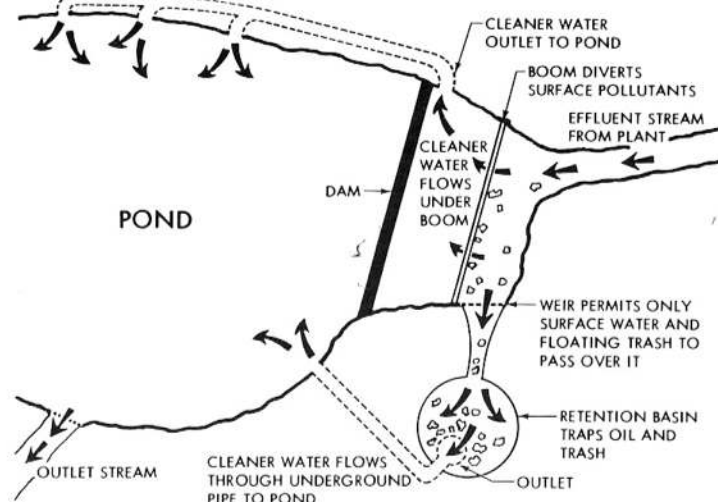
tures in the series are scheduled as follows:

On February 23 Dean E. Abrahamson from the Center for Studies of the Physical Environment at the University of Minnesota will speak on the "Environmental Impact of the LMFBR."

On April 10 Vincent P. Dole from Rockefeller University will speak on the "Biology of Addiction."

On May 22 Amos I. Chernoff, director of research at The University of Tennessee Memorial Research Center and Hospital,

(Continued on Page 8)



**COOL, CLEAR WATER**—A development by John W. Strohecker removes approximately 95 percent of floating pollutants from the Y-12 Plant's water effluent. The schematic drawing above shows the system, controlled by gravity flow, near the five-acre pond at the plant's East Portal.

## Oil, Floating Debris Removed From Water Effluent Near Y-12

Industries and municipalities concerned with finding a relatively inexpensive method of removing large amounts of oil and floating debris from stream surfaces may be interested in an invention by a Union Carbide Corporation engineer. The system operates by gravity flow, does not require the use of machinery, and effectively removes about 95 percent of floating pollutants.

The method, devised by John W. Strohecker, of the Oak Ridge Y-12 Plant's Numerical Control Engineering, has been used for the past year to improve the surface cleanliness of water effluent from the Y-12 Plant.

The Plant's water effluent drains into a five-acre pond which serves as a mixing and settling basin for waste process cooling water and selected dilute process wastes. Normally, the effluent stream flowing toward this pond contains undesirable contaminants such as oil and assorted debris.

The system devised by Strohecker to remove these pollutants before they reach the pond consists of a diversion boom, a self-adjusting skimmer and a retention basin. The diversion boom, floating across the inlet of the pond, diverts oil and other floating material to a side pipe which discharges into a 90 x 45 ft. retention basin.

A self-adjusting skimmer located at the side pipe inlet floats about one inch below the surface of the creek, thereby allowing the oil to float into the basin. Accumulated oil and debris are pumped periodically from the retention basin to a tank truck for disposal. The clarified effluent drains from the bottom of the retention basin into the pond and eventually is released to natural streams which empty into the Clinch River.

Engineering details of this system are being made available through the Industrial Cooperation Program of Union Carbide Corporation, Nuclear Division. Firms desiring this information should contact G. W. Mitchel, Oak Ridge Y-12 Plant, P. O. Box Y, Oak Ridge, Tenn. 37830.



John W. Strohecker

## Oak Ridge Holiday

Monday, February 21, will be the second official holiday of the year for Nuclear Division employees in Oak Ridge, even though they haven't observed one yet in 1972! New Year's Day was taken on December 31. (Paducah employees observed the second Monday in February as Lincoln's birthday.)

February 21 is the first of the weekend holidays of the year, always falling on the third Monday in February, honoring Washington's birthday. It is the only holiday not mutually shared in Paducah and Oak Ridge.



# Rouse Report Reveals Interesting Attitudes on UCC's Affirmative Action

By CHARLES A. BLAKE

(The following is the first in a series of articles dealing with the Rouse Report on the Nuclear Division's Affirmative Action Program. The second article will appear in the next issue of Nuclear Division News.)

"Affirmative Action Program?—I've never heard of it." When 700 Nuclear Division employees were asked, nearly 600 answered in this way. This question about affirmative action programs was one of 83 put by W. V. Rouse and Associates to Nuclear Division employees in a recent survey. We are disappointed when we heard this result, but, after all, we had asked for some honest answers when the Nuclear Division contracted with Rouse in the summer of 1970 to evaluate the affirmative action program.

After their questioning during the 1970-71 winter, Rouse and Associates studied the answers and in May, 1971, what has now become known as **The Rouse Report** was presented to the Nuclear Division. It included these recommendations:

1. Increase the number of people with affirmative action responsibilities and clearly define those responsibilities.
2. Develop a method for explaining the policy and intent of the affirmative action program to all employees in the Nuclear Division and provide for employee suggestion feedback.
3. Institute a program for training supervisors in human relations and place greater emphasis on employee counseling.
4. Develop a management trainee program.

The Rouse study includes two parts—employee interviews, and examination of affirmative action materials. In the first part, 695 employees (Oak Ridge Gaseous Diffusion Plant—159; Y-12—317; Oak Ridge National Laboratory—219) were interviewed by Rouse and his associates. The 10 interviewers—eight black and two white—sought answers to 83 questions covering Union Carbide's personnel practices, reactions to supervision and fellow employees, Carbide's involvement in community affairs, and especially about the Company's affirmative action program. The answers to these questions were correlated with the interviewees' race, sex, job, installation where working, length of company service, age, community where residing, and education. In addition, comments made by interviewees, but not necessarily in answer to specific questions, were recorded.

## Shows No Names

From these comments and attitudes during the interviews the questioners were able to make some "gut reaction" assessments of attitudes. These were identified as such in **The Rouse Report**. The selection of employees to be interviewed was made by Rouse from two lists supplied by the Nuclear Division. One list contained the names of white employees prepared by computer to show every tenth employee on the payroll. Rouse then selected an approximately equal number of whites and minorities (principally black). The industrial relations groups arranged the schedules for interviewing. The Rouse interviewers are the only ones who know who made what answer and **The Rouse Report** contains no names.

In the second part of the study, Rouse and Associates reviewed all of the Nuclear Division's relevant materials in the areas of affirmative action, especially in affirmative action plans and the reports describing progress in carrying out those plans.

The report and its recommendations were studied carefully at the Nuclear Division's four installations. No employees were interviewed at the Paducah Plant, but the same actions are taking place there. Rouse made two trips to Oak Ridge to discuss the report and he knows of the Division's actions.

The report says that, "The Nuclear Division affirmative action plan compares favorably with several (we have) analyzed, both in government and industry . . . We have determined that several parts of the affirmative action plan are being carried out effectively—goal setting for each plan, involvement in planning down to the division level, and (having) a well-defined objective which is supported by top management." But, the report adds, "it is (important) that all levels of supervision participate in setting objectives and goals for affirmative action."

Rouse said during his review of the report with us that the recommendation for "full participation" includes assignment of direct affirmative action responsibility to each person who makes decisions involving hiring, promoting, terminating, etc.

## Who is Rouse, What is the Report?

W. V. Rouse and Associates of Chicago, Ill., is a firm offering consulting services in areas which include developing career opportunities for minority employees, improving minority employee-management communications, evaluating training programs, developing human relations programs, and evaluating affirmative action programs. W. V. Rouse is black and most of the firm's employees are blacks.

## 'Could Share Ideas'

The affirmative action representatives in each of our divisions obviously owe their present assignments to this recommendation. Hence, the December 16, 1971 issue of **Nuclear Division News** announced the names of 66 affirmative action representatives who have been charged with responsibilities in connection with Rouse's first three recommendations. In addition, a group has been appointed to study the management trainee program recommendation on a Division-wide basis.

The report also recommends that a "black man with a sound background in counseling and personnel skills be added to the Nuclear Division affirmative action staff. Functioning together, the black and white team could share ideas and approaches to problems."

Earl Nash, a black with these credentials, is now employed as the affirmative action coordinator for ORNL's Personnel Division. He participates on the Division-wide coordinating group. There are six blacks and six women affirmative action coordinators.

The report anticipated the actions taken recently by the Office of Federal Contract Compliance which require affirmative action plans for women. The document, known as **Revised Order No. 4**, is becoming as familiar to our representatives as other documents they use in their primary job assignment. The new affirmative action plan will, indeed, include programs for employment, training and promotion of women.

## Interviews Favored

Nearly all of the employees interviewed (99 percent of the blacks, 97 percent of the whites) thought it was a good idea to find out more about employees by interviewing them. Listen to some of the things they said about information they get.

- Information is distorted because of middle manager's individual colorings and interpretations of news and company policy.
- Significant time is lost in transmitting news.
- Upper management makes few checks on channels of communication.
- Top management is never seen in the plant.

The report states, "Union Carbide's commitment to hiring and developing disadvantaged and minority employees is clear . . . affirmative action will continue to be only partially effective until a system is developed which provides regular employee information . . . (and) meaningful contact between top management and employees. Employees should be asked to comment on the program . . ."

This recommendation was made when Rouse found that over 80 percent of the employees interviewed had not heard about our affirmative action plans. Rouse points to employee impressions which need clarification.

- Supervisors do not see the program as voluntary and aggressive action on the part of Carbide.
- One-half the employees asked felt that the Training and Technology program enrolls mostly black students when in reality 60 percent of the trainees are white.

- Three of every four blacks feel they have to be more qualified than whites to get hired. (Ten percent of the whites also believe this.)
- One of every three whites feel blacks with lower qualifications get hired.
- Employees feel blacks are being recruited primarily for lower jobs.
- Seventy percent of the blacks felt they have less chance for promotion than whites with equal qualifications. Eleven percent of the whites felt that blacks have more of a chance.
- Eight percent of the whites feel Carbide is not going far enough with its equal opportunity programs, 60 percent of the blacks feel the same way. Twenty-three percent of the whites felt that Carbide is going too far.
- Nine percent of the blacks feel that their supervisors are under too much pressure in the area of equal opportunity, but only 12 percent of the whites feel the same. Thirty-eight percent of the blacks feel the supervisor has too little pressure.

## ABOUT ATTITUDE SURVEYS

Ask someone how it is and he's liable to tell you. You may find, however, that how it is to him may not be how it seems to you. But, if you're not ready to accept this, why bother to ask? If we can accept this, then we can use the results of the Rouse survey to develop a more effective Affirmative Action Plan. We hope we have.

Rouse feels that employees, and supervisors in particular, will be more supportive if specific information is given them. Many of our readers are already aware that we are now engaged in a program of telling every employee about the affirmative action program.

Rouse observes that there are disproportionately few blacks and women at the supervisory level within the Nuclear Division, and that there are no programs to change the situation. Employees observe this as a lack of commitment on the part of the Company. Further, employees feel that promotions come easier when "we have someone at the top," and the lack of blacks and women there is seen as impeding their progress.

## WERE YOU ASKED???

If you were one of the 700 interviewees in the Rouse survey, thanks for your cooperation. There are, however, about 14,000 of you who were not interviewed. Maybe you'd still like to speak your piece. If so, scribble down your comments and send them to Charles Blake at Charlotte Hall.

## Engineers Week Banquet Ticket Sellers Appointed

The Tennessee Society of Professional Engineers lists the following ticket sellers for the banquet, set in Oak Ridge, February 25. Tennessee's governor, Winfield Dunn, will be special guest speaker. Sellers are: George M. Doyle, AICHE, telephone 3-3557; A. A. Abbatiello, ASME, 3-7322; Charles Pollock, ASM, 3-1505; Joel Garber, ASNT, 3-5413; John Morgan, IEEE and AEC, 3-4323; Jim Hylton, ISA, 3-5311; Paul Boyer, SME, 3-7913; Rolf Rosenvinge, TSPE, 3-3677; and Jim Thompson, AWS, 3-5265.

## NUCLEAR DIVISION NEWS



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— Member —

APPALACHIAN INDUSTRIAL EDITOR'S ASSOCIATION  
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**ACHIEVEMENT AWARDS**—Five additional men are completing the operator trainee program conducted by the Operations Division at ORGDP. The course includes 15 months of classroom and on-the-job training in the skills required to operate the many different types of equipment used in the gaseous diffusion uranium isotope separating process. From left are Robert L. Wilkerson, John Cobb, Jr., Robert H. Dyer, Cascade Operations superintendent, who made the presentation of the plaques; Robert L. Cabe, III, Fred Rodgers, Jr., William D. McCluen, Coordination and Training; Larry E. Brasel, and Leo J. Davis, training coordinator.

## Marshall Lands Largest Catch During ORGDP '71 Fishing Rodeo Competition

ORGDP recently announced winners in the 10 species fishing rodeo for 1971. The largest fish entered was a 10 pound, seven ounce rock fish, brought in by Ira C. Marshall. The largemouth bass contest, among the closest contests in the rodeo, saw three winners, all above eight pounds, and separated only by ounces!

Following is a breakdown of 1971 winners:

### LARGEMOUTH BASS

1. Eli Y. Kimmerly
2. Norman D. Rathbone
3. Paul W. Harris
4. Ernest H. Randolph
5. Richard E. Brockwell

### SMALLMOUTH BASS

1. Eugene B. Eastridge
2. Edward A. Leach
3. Eli Y. Kimmerly

### STRIPED BASS

1. Harold E. Walters
2. Neil Hurd
3. Eugene B. Eastridge
4. Ernest H. Randolph

### ROCK FISH

1. Ira C. Marshall
2. Neil Hurd

### WALLEYED PIKE

1. Phillip M. Lively
2. Norman D. Rathbone
3. Harold E. Walters
4. Neil Hurd
5. William E. Brown

### TROUT

1. Ernest H. Randolph
2. Joseph A. Walker

### SAUGER PIKE

1. Harold E. Walters
2. Norman L. Sugarman
3. Joe H. Fletcher
4. Neil Hurd
5. Raymond E. Cooper

### CRAPPIE

1. Howard J. Rash, Sr.
2. Lacey H. Jones
3. Norman L. Sugarman
4. Neil Hurd
5. Lindsay E. Southard

### BREAM

1. William Madix
2. Eugene B. Eastridge
3. Raymond E. Cooper
4. Tom Jones

### ROCK BASS (RED EYE)

1. Norman L. Sugarman
2. Harold E. Walters
3. Neil Hurd
4. Ray Cooper



**ONE OR TWO DRIVING MEMBERS** of car pool wanted from West Knoxville to ORGDP Portals 2, 5 and 6, 7:45 a.m. to 4:30 p.m. R. P. Milford, plant phone 3-9673.

**RIDE WANTED** or will join car pool from Maryville to Portal 4 or 6, 8 to 4:30. Ed Crowe, plant phone 3-3396, home phone Maryville 984-0064.

"Application is the price to be paid for mental acquisition. To have the harvest, we must sow the seed." — Bailey

### SAFETY SCOREBOARD

#### ORGDP

Has Operated  
**479,000 Safe Hours**  
**Through February 10**

Since last disabling injury January 7

## Oak Ridge Gaseous Diffusion Plant

ORGDP Editor ..... Doug Carter  
extension 3-3017

## Four ORGDP Vets to Retire February 29

Four long-time ORGDP employees retire the end of February. They are William A. Haynes, Mechanical Services; George C. Minor, Electrical Test Department; George W. Saffles, Receiving Department; and Herbert H. Wells, Fabrication Shops Department.

### William A. Haynes

William A. Haynes, a native of Briceville, came to ORGDP September 15, 1944, after working with the Tennessee Mills, Columbia. He presently lives at Route 5, Clinton, on his farm.

Mrs. Haynes is the former Maude Byrum, and they have two sons, David and Charles, both working in Fabrication and Maintenance at ORGDP. They also have two daughters Shirley (Mrs. Hugh, Engineering) Beeson, and Diane Tidwell.

He says he plans to watch more ball games, garden and fish in his retirement.

### George C. Minor

George C. Minor was born in Chattanooga. He was in business for himself from 1937 until 1943, when he moved to Oak Ridge. He first worked with Roane-Anderson and J. A. Jones Construction before coming with ORGDP September 11, 1945.

He lives at 147 Lawton Road, Oak Ridge. Mrs. Minor, the former Cleo Coppinger, is deceased. Minor has two sons, William F., Oak Ridge, and George R., Jekyll Island, Ga.; and six daughters, Gloria Glandon, Claxton; Dorothy Kitchin, Oak Ridge; Lillian Mentz, New York; Marilyn Smith, Oliver Springs; Annette Minor, and Virginia Minor, at home.

Minor says he plans to stay in Oak Ridge, pursuing his hobbies, which include electronics and music, as well as travel.

### George W. Saffles

A native of Madisonville, George W. Saffles came to ORGDP September 26, 1945. He worked with the Tennessee Valley Authority before coming with



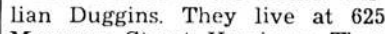
Haynes



Minor



Saffles



Wells

Union Carbide.

Mrs. Saffles is the former Lillian Duggins. They live at 625 Margrave Street, Harriman. They have two sons, Richard, Harriman; and Larry, Louisville, Tenn.

He plans to do some home improvement, and work with flowers. Stamps and photography also occupy a lot of his spare time.

### Herbert H. Wells

Born in Tazewell, Herbert H. Wells came to ORGDP March 12, 1948. He worked with the Tennessee Valley Authority in the Knoxville area before coming here.

Mrs. Wells is the former Betty N. Tinker. They live at 115 Sanford Lane, Oak Ridge, and have five children, Clara Shanks, Concord; Nancy Hall, San Jose, Calif.; James, Washington, D. C.; Phillip, Macon, Ga.; and Roger, Nashville.

Wells has turned a hobby into a profitable business. He and his wife do ceramic work in their home. He also likes to fish and garden.



**CREDIT UNION MEET**—Another successful year of operation was reported by the ORGDP Credit Union at their recent annual meeting. At left, door prize winners, from left, Earl Leonard, Allene Sills, Charleen Walker, L. R. Jones and W. J. Kennedy. Edna Hicks and Shirley Good also won door prizes, but got away before photos were made. In the photograph at right, the 1972 officers line up

for an official picture, seated are Bert M. Kelly, V. O. Maggart, Evelyn Cole, John M. Shumpert and Charles E. Goodman. Standing are Ewell S. Strickland, V. B. Goddard and H. L. Mims, manager. Approximately 300 members attended the Thompson, Doug R. Carter, Harold B. Gunter, M. N. meeting to hear a dividend of 5.4 percent announced. Dividends will be added quarterly for

1972. Evelyn Cole and Maggart were reelected to the board of directors; Shumpert and Goodman are new members to the board. Gunter was added to the credit committee. In election, Maggart was named president; Kelly vice president; Evelyn Cole secretary; and Thompson was named treasurer. The highlight of the year, of course, was the Credit Union moving into its new building.





## Oak Ridge National Laboratory

ORNL Editor ..... Martha Goolsby  
extension 3-6421

# Recycling Program Not New At ORNL; Rate Accelerated

"Now is the time for all good men to—recycle." How well this might be the cry of the seventies as individuals and in turn government and industries become more aware of conserving natural resources. Recycling—what are we doing at ORNL and what is the potential?

ORNL's recycling program is not new. From its beginning ORNL has initiated methods to recycle its waste as industrial needs and markets developed.

In June 1971, David J. Rose, then head of the Long-Range Planning Office, and Jack Gibbons, director of the ORNL-NSF-Environmental Program, expressed to Plant and Equipment Division their interest in increased activities for recycling Lab-generated waste. In addition, they stated the need for recycling as much of the waste as was practicable in order that this installation could continue its proper place as leader in research toward decreasing environmental pollution and conserving natural resources.

At the time various studies were being conducted at ORNL which dealt with reclaiming or purifying wastes. Under consideration were recycling paper and solid waste, purifying water from organic and chemical pollution, and the possible problem of mercury in the environment, to name a few. But with an "actions-speak-louder-than-words" philosophy, a task force was set up to consider the full scope of recycling at ORNL and to coordinate that activity.

### Markets Available

The task force is headed by Julian Gissel and includes Tom Diggs, Ross Grubb, John Jones, James Macres and Carey Morgan. Their approach has been threefold. 1) To make an analysis of non-contaminated wastes generated in ORNL operations, 2) to recap current activities relating to waste handling including segregation, collection and disposal, and 3) to make proposals for increasing volume and variety of material recycled.

They tackled such questions as: do we generate enough of a particular kind of waste to reasonably recover? What markets are available to buy our waste products? Do we segregate things like scrap metal or waste paper products into the proper number of categories, to strike a reasonable balance between revenue received and cost of labor expended? How can we maintain the best operational level of waste collection and recycling? How can we calculate the net benefit in relation to ORNL's pollution-environmental efforts? Can more materials be reused by ORNL, through UCC-ND property sales or through the institution of contract sales to outside businesses? How can existing equipment best be used? What are manpower and new equipment requirements?

### Records Surplus

The task force primarily considered the sensibleness of recovering materials and, to a lesser degree, recovery costs of wastes generated at ORNL. Only certain liquids and all non-contaminated solid waste were considered.

**Paper and paper products.** A recycle yield of approximately 325 tons of paper can be projected per year. In addition approximately 20 tons of paper towels would be available (of some 35 tons used per year) if drying techniques could be found.

Where does the paper waste originate? Twenty-six tons of the total is in the form of bound reports from Laboratory Records. Mathematics personnel generate 14 tons of paper waste besides the 170 tons of continuous output paper produced by the computers for ORNL personnel. The remaining tonnage is miscellaneous paper from the various offices throughout the Laboratory.

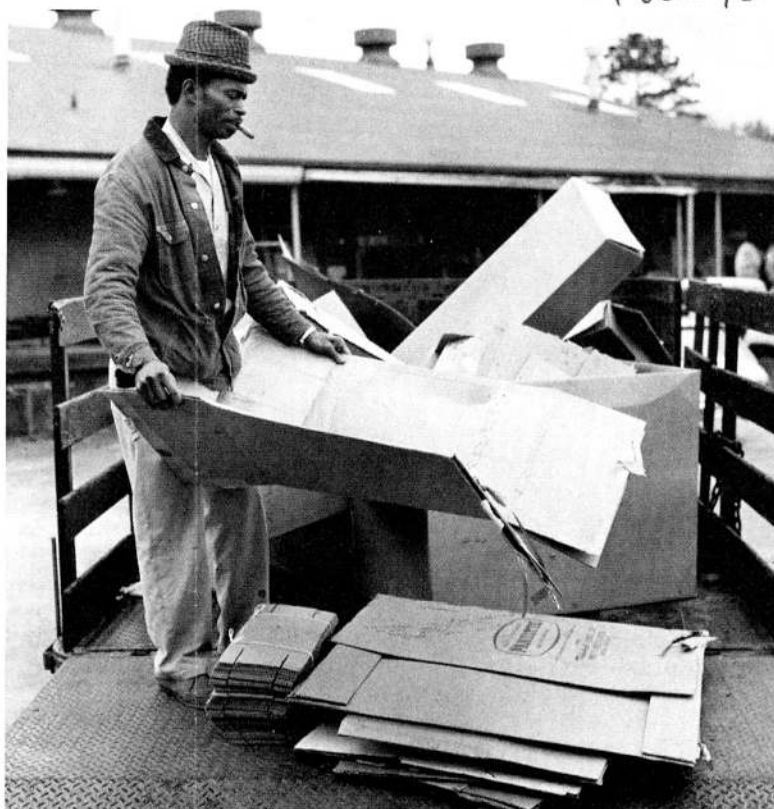
### Property Sales

Waste paper is sold to Knoxville Waste Paper Company. At present, it is sold as mixed paper at \$6/ton, but plans are underway to improve sorting practices and receive higher revenue per ton.

Divisions generating computer cards should spot them at pickup points as they accumulate. P&E picks up cards each Thursday morning at 4500N, 4508 and 6010. Other locations are served on an on-call basis. Twenty-five tons of computer cards were sold during FY-71 at the rate of \$45.50/ton.

**Recycling through property sales.** Selling used items or materials through property sales allows for low-volume sales and diversified markets. For example, paper recycling involves large-volume sales directly with recycling concerns. However, other valuable wastes are available in much smaller quantities. Smaller quantities of scrap metal, used tires, oil, 55-gallon drums, mercury batteries, automotive batteries and power poles are collected for Property Sales. These items can be distributed to other Oak Ridge installations, to government agencies, or sold.

(Continued on Page 8)



**BOXES, BOXES EVERYWHERE**—And not a one collapsed. Till Charles Douglass arrived. Help out. Take discarded boxes to collection points and spend a minute to collapse them before discarding.

## Einstein Award Goes To E. P. Wigner

Eugene P. Wigner, long-time consultant and former director of research and development at ORNL has been named the winner of the Albert Einstein Award for his contributions to the physical sciences.

Wigner, who shared the Nobel Prize in Physics in 1963, is professor emeritus of mathematical physics at Princeton University. Presently he is a visiting lecturer at Louisiana State University. He is the founder of the ORNL Civil Defense Research Project and continues to consult with the Project.

Wigner's awards and honors are legion. He received the U. S. Medal for Merit in 1946, the Enrico Fermi Prize in 1958, the Atoms for Peace Award in 1960, the Medal of the Franklin Society and the Max Planck Medal of the German Physical Society in addition to the Nobel Prize. He has been awarded honorary degrees from eight universities.



E. P. Wigner

Wigner is the twelfth recipient of the award which was established 30 years ago on Einstein's seventieth birthday. The award which specifically cited Wigner's theory of nuclear reactions includes a gold medal and a \$5,000 honorarium.

## Golf Contests-ORNL

April 22 ..... Gatlinburg  
May 20 ..... Whittle Springs  
Knoxville  
June 24 ..... Wallace Hills  
Maryville  
July 22 ..... Cedar Hills  
Lenoir City  
August 26 ..... SW Point  
Kingston

### ADVANCED DEGREES

Two ORNL employees received advanced degrees during the winter commencement at The University of Tennessee. James A. Ealy of Analytical Chemistry Division received the M. S. degree in analytical chemistry. Tommy S. Kress of Reactor Division received the Ph. D. degree in engineering science.

### CU OFFER ENDS

The bonus gift offer for financing automobiles and trucks at the ORNL Credit Union expires February 29, 1972. Finance now for your free gift.

## WANTED Rides Car Pools

RIDE from Hackworth Road in Karnes to East Portal, 8:15 a.m. Teresa Parson, 3-6951 or 483-5261.

RIDE from West Haven area of Knoxville to East Portal, either shift. Alice Montgomery, 3-6905.

RIDE from Emory Road near Plasti-line to North Portal, 8 a.m. O. D. Hatmaker, 3-6215 or 947-6733.

CAR POOL MEMBERS from UT area to South Portal, 8:15 a.m. Dick Snyder, 3-1922 or 522-0940.

TWO CAR POOL MEMBERS from vicinity of Waddell, West Outer, Pennsylvania or Utah to East or North Portal, 8:15 a.m. Tom Burnett, 3-6939 or 483-1975.

JOIN CAR POOL from Elm Grove area to any portal. Yair Talmi, 3-1233 or 483-6029.

TWO CAR POOL MEMBERS from West Hills or Crestwood Hills in Knoxville to West or South Portal, 8 a.m. John Morton, 3-1429 or 693-0038.

## Company 20-25-30 Service

The following will be celebrating 20 and 25 years of company service during February.

### 25 YEARS

Robert E. Alexander, George C. Warlick Jr., Charles D. Cagle, William E. Bayless, Edward I. Wyatt, Wallace H. Best, Charles W. Parks, Harry H. Nichol, Ruth Slusher, Gene T. Conner, William O. Greever Jr., Eugene F. Roy, Charles E. Murphy, Jesse Miniard, Clara L. Cawse, Henry V. Owens, Earl W. Sparks, John A. Kinnane, Fay E. Puryear and David E. Lavalle.

### 20 YEARS

William C. Yee, William A. Lindsey, John W. Fritz, Albert H. Malone, Robert L. Shepard, James L. Botts, Bryce Philpot, Calvin W. Walker, James T. Cox, James T. White, Lloyd L. Hall, Andrew C. Smith, Lloyd F. Bruce, Marion A. Wheeler, Wallace N. Tillery, William G. Tatum, Cleo C. Hendrix Jr., Gerald Goldberg, Perry S. Gouge, Clifford A. Burchsted, Elizabeth C. Rymer, Hoke Scott Culbertson and James E. Brooks.

## February Retirees Include Prominent Staff Members



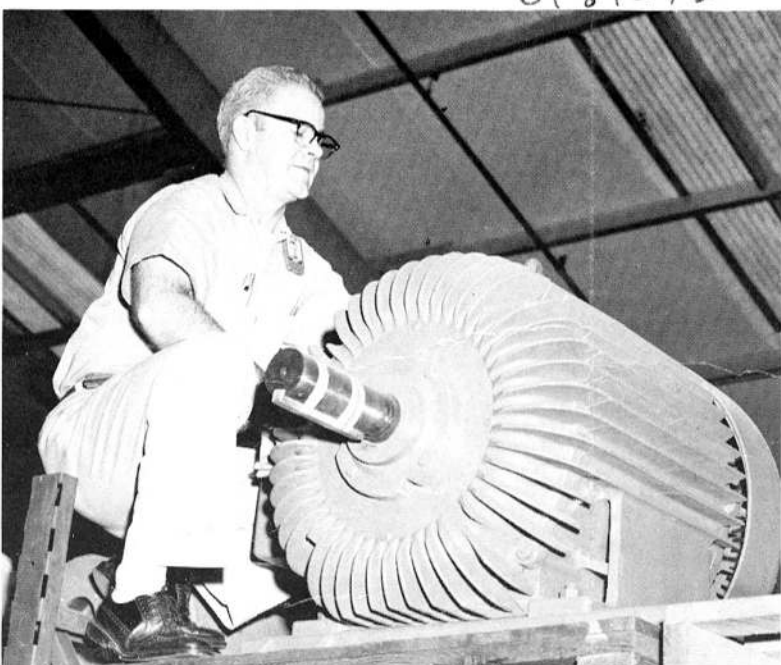
Martin

Bates

February retirees, A. E. Griffith Bates and Howard L. Martin, plan to soak up some Florida sunshine immediately following their retirements and before they make any permanent plans.

Bates joined ORNL in April of 1956 and is a research engineer in Instrumentation and Controls Division. He lives at 107 Chatham Lane in Oak Ridge.

Martin, who joined ORNL in April 1944 is a staff member of General Engineering Division. However, for the past four years he has been on loan to the Y-12 Engineering Department as an environmental control engineer. He lives at 101 Norton Road in Oak Ridge.



**NEED A NEW MOTOR?**—Robert Slover of Plant and Equipment Division will find the right one for you. If not a motor, there are thousands of other items at Building 7018 which you can claim. How about a bright red desk, a slightly used console, an enlarger or a shipping crate twenty-five feet long? Or you can add to the menagerie with used equipment that's catching dust around your lab. Call Walt Mayott, 3-6353.



## Thomas Reed, Beta Two Died at Concord Home

Thomas E. Reed, Beta Two Chemistry, died at his Plum Creek Road, Concord, home January 25. He had been with Union Carbide since August 30, 1950. Before com-



Mr. Reed

ing to Y-12, he worked with Newport News Shipbuilding in Newport News, Va., and Mead Corp., Sylva, N.C. He was a native of Sylva. Survivors include his wife, Betty; a son, Thomas E. Reed, Jr., Fort Wayne, Ind.; two daughters, Elizabeth and June, at home; his father, Lloyd Keener, Sylva; a brother Hal Keener, Calif.; a sister Mrs. Hilda Flickenger, Washington, D.C.; and one grandchild.

Services were held Thursday at Ball Camp Baptist Church, Knoxville, with the Rev. Dan Murphy officiating. Burial followed in Ball Camp Cemetery.



Cox

Inman



McMaster

Marlar

## Four Old-Time Y-12ers Retire End of February

Four Y-12ers will retire at the end of February, marking long careers with Union Carbide Corporation. Leaving will be Elwood B. Cox, Utilities Administration; Shade H. Inman, Research Services; Joe M. McMaster, Reproduction; and Leroy R. Marlar, General Machine Shop.

### Elwood B. Cox

Elwood B. Cox, a native of Clinton, came to Y-12 in early 1943. The Coxes live at Route 1, Heiskell, and have two daughters Reva Sue Parrott, Caryville, and Iva Deane Bowles, Powell. Mrs. Cox is the former Hattie Melton. Cox worked in mining and the lumber business before coming here. He also worked with Stone and Webster, and in the building of K-29, K-31, K-35 at ORGDP.

### Shade H. Inman

Shade H. Inman was born in Morristown and came to Oak Ridge early in 1944, and has worked in Y-12 his entire UCC career. Prior to coming here he was in the grocery business, did upholstering and cabinetmaking. He worked with Triangle Hosiery and Slane Hosiery Mills in High Point, N.C.

Mrs. Inman is the former Ella S. Baugus. They have a son, Edwin Robert, living in Oak Ridge; and a daughter, Christine Gregory (Ed Gregory's wife. Gregory is in Y-12's Fire Department.)

### Joe M. McMaster

A native of Mercer, Tenn., Joe M. McMaster came to Y-12 July 11, 1944. He was a motor grader operator in Milan, Smyrna, Millington, and Jackson, and was a mechanic with Georgia Air Service, Jackson, before coming to Y-12.

Mrs. McMaster is the former Kathryn E. Surber. They live at 137 Wade Lane, Oak Ridge, and have a son William M., Heiskell; and a daughter, Nancy Stevens, St. Louis, Mo.

### Leroy R. Marlar

Born in Clanton, Ala., Leroy R. Marlar came to Y-12 November 2, 1953. He lives at 524 Delaware Avenue, Oak Ridge.

Mrs. Marlar is the former Winne Adcock. They have two daughters, both married to U. S. Air Force men; JoAnn Phillips, Ft. Rucker, Ala., and Nancy Rouse, in South Carolina.

Marlar worked at ORGDP in the early 50s, and was a machinist in Birmingham, Ala., and

## More Traffic Lights Put on Bear Creek

Noticed anything different in Y-12's traffic control? Installation of additional traffic signals and lane indicator lights along Bear Creek Road are now complete. These controls, along with other traffic changes, are part of an overall program designed to make travel easier and safer for everyone.

One important change has been the addition of pedestrian signals along Bear Creek Road. These push button signals will help employees using the passenger pick-up stations by stopping all vehicular traffic and allowing safe crossing at intersections. Motorists are cautioned to be alert for pedestrians and to observe the new signals. It is hoped that the change will encourage greater use of the pick-up stations and thus relieve some of the portal traffic.

A major change has also been made in the reversible centerlane of Bear Creek Road. This lane will now remain open for west-bound traffic during most of the day and will be switched to handle eastbound traffic only from 3 p.m. until 5:15 p.m. Motorists are reminded to observe the lane indicator lights and to obey the signals above the lane in which they are traveling.

Initiation of these improvements, like the beginning of any new system, is certain to bring unexpected problems. Motorists are asked to exercise patience while these problems are being resolved. Anyone experiencing undue traffic problems or having traffic-related problems should feel free to call the Y-12 Traffic Committee, extension 3-5981.

## Golf Schedule-Y-12

April 22	Wallace Hills
	Maryville
May 20	Gatlinburg
June 24	Whittle Springs
	Knoxville
July 22	SW Point
	Kingston
August 26	Cedar Hills
	Lenoir City

## WANTED

Rides Car Pools

Riders wanted from West Village, Garden Apartment area, Oak Ridge, to North or Biology Portal, straight day. Jimmy Wesley, plant phone 3-7574, home phone Oak Ridge 483-7094.

Riders wanted, starting February 1, Valley View or Tucker Still-Smithwood, Inskip Road, Clinton Highway, to East, North or Central Portals, straight day. W. L. McCarmick, plant phone 3-5723, home phone Knoxville 522-5207.

Ride wanted from East Knoxville, Park City vicinity, to North or Biology Portal, straight day. J. S. Blakely, plant phone 3-7432, home phone Knoxville 546-6746.

Portsmouth, Va., before coming to the Oak Ridge area.

Two additional old-time Y-12ers retired January 31, as Ernest V. Hawk, Material Specimen Shop, and William Penn, Engineering Division, elected early retirement. Hawk came to Y-12 March 2, 1944, and Penn came here July 24, 1945.

## Oak Ridge Y-12 Plant

Y-12 Plant Editor ..... James A. Young  
extension 3-7100

6-19160



**SAFETY AWARD CERTIFICATES**—Helen Baucum, left, and Bobbie Loving, in Y-12's Technical Information Services, discuss what they plan to do with their safety certificates for the sterling performance of the Y-12 Plant safetywise last year. The certificates are redeemable at four different Oak Ridge and Knoxville stores.

## Y-12 Credit Union Passes \$10 Million In Assets, Members Told at Meeting

Y-12's Credit Union passed a landmark recently . . . attaining assets in excess of \$10 million. Members heard this news at the 22nd annual meeting held January 27, at the Robertsville Junior High School in Oak Ridge.

President Paul Blakely pointed out the 25 percent growth experienced last year by the credit organization pushed the group past the \$10 million mark about the middle of December. Even with this increase in the number of shares on which dividends must be paid, Blakely pointed out, that a five and one-quarter percent annual dividend was still possible, declared and compounded quarterly.

During 1971, a total of 8,164 loan applications was processed through the credit union, with an approved total of more than \$9,631,907.34! This averages a loan

every 10 minutes during regular hours, according to J. Mullens Petty, chairman of the credit committee. Since the Y-12 credit group was organized, a total of 124,242 loans has been made in the total amount of \$81,515,839.81. This includes loans for automobiles, real estate, educational expenses, campers, trailers, boats, televisions, furniture, motors, farm equipment, and other various appliances.

At the close of business at the end of 1971, it was pointed out, that the Y-12 Credit Union had 6,500 members and \$10,231,971.91 in assets!

Three new members were named to the board of directors: Lorena Matthews, Dick Loveless and Herb Gwinn. J. Mullens Petty was renamed to the Credit Committee.



**FUTURE MOCCASINS**—Two mighty Davids from Oak Ridge High School signed grants-in-aid with the University of Tennessee of Chattanooga recently. Seated from left are David Moore, quarterback, and David Oliphant, wide receiver. They sit in front of their parents, Mr. and Mrs. Emmett L. Moore and Mr. and Mrs. George Oliphant. Moore is Recreation Director for Y-12, and Oliphant is superintendent of the Electrical and Electronics Department in Maintenance. Both Davids gave outstanding performances for the Wildcats. Young Moore served as team captain for the 1971 season, and Oliphant played both offensive and defensive football. Both youths are active in the Fellowship of Christian Athletes.

## SAFETY SCOREBOARD

The Y-12 Plant Has  
Operated  
117 Days Or  
4,126,000 Man-Hours  
(Unofficial Estimate)  
Through February 13  
Without A Disabling Injury  
SAFETY AT HOME,  
AT WORK, AT PLAY



### 25 YEARS

John G. Tate  
John E. Hargis  
Clarence G. Christiansen  
Arnold R. Agee  
Zola E. Hill  
Emmett L. Moore  
Odeva Mack  
George M. Delcour  
Woodrow W. Cook  
Raymond F. Mettelka

### 20 YEARS

Arvin E. Huskisson  
Alfred B. Anderson  
Guy T. Halmontaler  
Harry E. Henderson  
James A. McNelly  
Byron H. Hale  
Charlie L. Nelson  
June M. Maupin  
Clayton L. Monday



## Paducah Gaseous Diffusion Plant

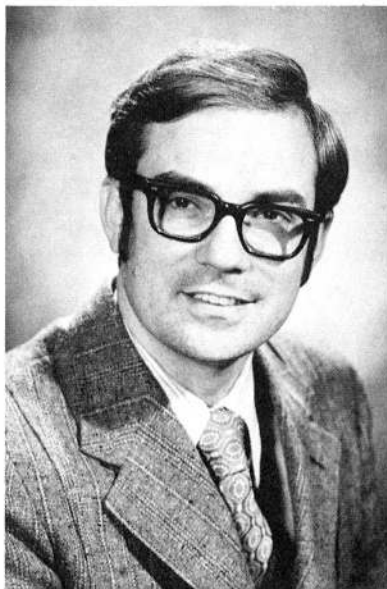
Paducah Editor ..... Keith Bryant  
extension 369

### M.S. Degree is Awarded To Paducah's Chapman

Congratulations to Barry Chapman, Paducah's Purchasing Department! He has just received his master's degree in business administration from Murray State University, Murray, Ky. A native of Paducah, and a graduate of Paducah's Tilghman High School, Chapman holds an associate in arts degree from Paducah Community College, and a bachelor of science degree in finance from Murray State.

Chapman has been in Paducah Plant's Purchasing Department since 1962, and is responsible for the purchase of metals, pipe, plumbing supplies, welding equipment, pumps, cranes and other miscellaneous items.

A bachelor, Chapman is a ham radio operator and has an "extra class" in that hobby. He is a member of the First Baptist Church, where he teaches Sunday School, and also sings in the church choir and men's chorus. He recently



Barry Chapman

completed an extensive tour of the Holy Land.

### Nuclear Division's Safety Cited

An excellent safety record was reported during 1971 at the four facilities in Oak Ridge and Paducah.

During the year, the disabling injury frequency rate at the four facilities was 0.68. The disabling injury frequency rate is the number of injuries per million hours worked.

The Nuclear Division figure of 0.68 compares to a 1970 frequency rate for all U. S. industry of 8.87, and a chemical industry rate of 4.28. Employment at the Nuclear Division facilities is approximately 15,000.

Commenting on the safety performance during 1971, Roger F. Hibbs, President of the Nuclear Division, said the Division's fine safety performance over the years had been the result of continuing efforts on the part of all employees.

Hibbs explained that the Nuclear Division's safety program encompasses formal safety meetings, inspection programs, an extensive education program, which includes issuance of safety messages and bulletins, and a safety award incentive program.

He added, however, that there is much room for improvement, since 19 disabling injuries were noted at the facilities during 1971. The Nuclear Division President reported that none of these accidents involved any sort of exposure to radiation. "All of these were the usual plant accidents characteristic of most any type of industrial operation," he said.

Hibbs expressed concern about the number of off-the-job accidents. A total of 186 disabling injuries occurred outside the plant environment during 1971. These accidents, which accounted for

### Who's Who Lists G. Vancil's Son

Christopher N. Vancil, son of Mr. and Mrs. Glenn Vancil, Route 2, Old Cairo Road, has recently been elected to Who's Who among Students in American Universities.

Young Vancil, a senior at Murray State University, where he is majoring in mathematics, is president of the Euclidean Mathematics Club and was last year's selection as the outstanding junior member of the club. He attended the University of Kentucky his first two years of college, and after deciding to enter the teaching field, he transferred to Murray State for his last two years of study. He is practice teaching at Farmington High School, engaged in geometry and algebra.

The proud father is in Paducah's Maintenance Engineering.

Chris presented his parents another honor recently, a daughter-in-law, Judith Ann Story.



Christopher N. Vancil

four deaths and more than 6,000 lost man days of work, occurred primarily in the home, and while driving automobiles.

"It is not enough to be safety conscious on the job," he said. "All of us must increase our efforts to follow good safety practices, whether at work, in the home, or driving motor vehicles."

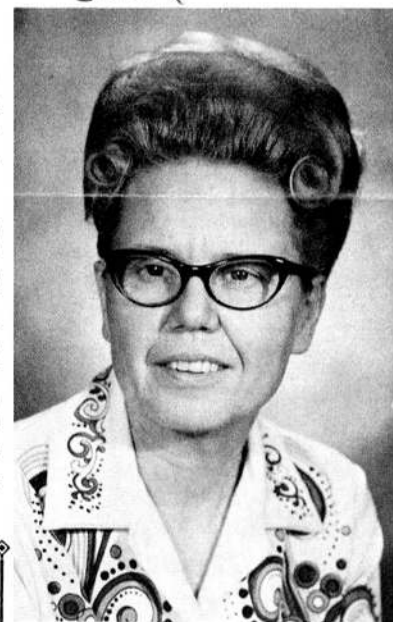


**BEGINS FOURTH TERM**—John Hornsby, Industrial Relations Division employee in Paducah, recently was reelected as Paducah City Commissioner for his fourth term. He is shown with the newly elected mayor of Paducah, the Honorable Dolly McNutt, one of the very few women mayors in the nation.

### Who in the World

Who in the world? The silhouette in January was Annie Ruth Long, Industrial Relations Division Superintendent Arthur K. Edwards' executive secretary.

Congratulations to Gene Larson, Purchasing; Chris Cawood, Employee Relations; Dave Stahr, Medical; Martha Cates, Employment; and J. B. McGinnis, Photograph, for being the first five to identify Annie correctly. Later editions of the Nuclear Division News will have other well-known silhouettes for Paducah employees who guessed wrong, or didn't guess at all!



Annie Ruth Long



**NEW FIT STUDENTS**—A total of 16 new men have entered the Functional Industrial Training (FIT) Program at the Paducah Plant. Seated, from left, are Buster Shaw, Richard H. Washington, Jerome I. Collier, Frank R. Carter, Donald E. Kenley, Curley A. Simmons, Gerald L. Box and William B. Morgan. Standing are Henry M. Morris, Instrument In-

structor; Steve A. Polsen, Physics Instructor; Randall L. Barnes, Kenneth W. Riley, Roger E. Miller, Danny J. Garrison, Larry G. Davis, Joe D. James, Eddie L. Williams, Roy E. Sitton, Electrical Instructor; Hugh A. Vantreece, Drafting Instructor; and Elvin E. Kuehn, Electronics Instructor. Student Thomas F. Burris was absent when the photo was made.

### FIT Program Adds Additional Trainees At Paducah Plant

Robert A. Winkel, Paducah Plant Superintendent and Bill D. Penry, Industrial Engineering Department, have announced the entrance of an additional 16 trainees in the Functional Industrial Training Program (FIT). FIT is jointly sponsored by the U. S. Department of Labor, the Kentucky Labor Department, and the Atomic Energy Commission. The school is operated by Union Carbide Paducah Plant personnel.

New students include Richard H. Washington, Jerome I. Collier, Frank R. Carter, Donald E. Kenley, Buster Shaw, Curley A. Simmons, Gerald L. Box, William B. Morgan, Randall L. Barnes, Kenneth W. Riley, Roger E. Miller, Danny J. Garrison, Larry G. Davis, Joe D. James, Eddie L. Williams and Thomas F. Burris.



## Ostomy Club

# New Friend When Needed

By T. A. LINCOLN, M.D.

The loss of the rectum or colon because of cancer or ulcerative colitis can devastate morale. A young man facing the removal of his entire colon and the creation of an artificial opening in his abdominal wall fears that his hopes for a happy marriage have been destroyed. He may feel that his career plans will have to be abandoned. A young woman worries even more about her attractiveness to a man. A middle-aged cancer of the rectum victim fears rejection by his or her mate and a life of mere toleration or sympathy. The reassurance given by the surgeon somehow isn't convincing.

Since he doesn't have this problem himself, how could he really know?

At such times the visit by a person of the same sex, approximately the same age, family, and career status who has this artificial opening, called an ostomy, can boost his morale and help the patient face life realistically. Much to his surprise, he finds that compromises with future plans may not be necessary. A full, happy, successful life may now be even more likely because of the maturing effects of conquering a handicap and facing life realistically.

### Three Principal Types

There are three principal types of ostomies; an ileostomy, a colostomy, and an ileal bladder.

An ileostomy is an opening for the end of the small intestine, the ileum, on the abdominal wall. About four out of five ileostomies are done for ulcerative colitis. Others are required for cancer, injury, and several rare diseases. It is necessary because the entire colon and rectum occasionally have to be removed to control the disease. Most people who have this operation are under 40 years of age, many in their late teens or early twenties. They wear a well fitted, airtight, odor-free plastic bag cemented around the opening. When the bag fills every three or four hours, it can be emptied easily into the commode through an opening in the bottom of the bag.

A colostomy is an abdominal opening usually made for the left side of the colon. The most frequent cause is cancer of the rectum, which requires its complete removal. Other causes include diverticulitis and injury. A person with a colostomy usually gets by with an irrigation (enema) through the opening every one to three days. In between irrigations, the patient wears a small odor-free, airtight, lightweight stick-on plastic pouch which gives maximum security. After a pattern has been established, the patient with the colostomy has remarkable freedom since he establishes a schedule at a time of maximum convenience for himself.

The less common, third type is the ileal bladder. Patients who have lost their bladder because of congenital defects, cancer, or injury, use a pouch constructed from the ileum. The ureters from the kidneys are implanted in the pouch which drains to the outside. It is managed much the same as in a patient with an ileostomy. The urinary pouches have a valve at the bottom and can be emptied as easily as urinating naturally.

### Adjustment After Surgery

Following surgery, there is a period of learning to live with this new way of elimination. The surgeon and the hospital are primarily responsible for teaching the techniques and being certain that the surgical opening, called the stoma, is infection free and functioning properly.

In some large hospitals, special enterostomal therapists (ET) serve this function. The ET provides pre-operative consultation and post-operative care, education, and emotional support. Many of them are ostomy patients who have made an excellent adjustment to their "handicap" and have an optimistic outlook. Members of an ostomy club can be a real help in the psychological adjustment that is necessary. They also offer many tricks and bits of help overlooked by some of the professionals.

As might be expected, there can sometimes be friction between the surgeon, the regular nursing staff, the ET, and members of a local ostomy club. Such conflict is totally unnecessary and most ostomy clubs strive extremely hard to



Dr. Lincoln

## Credit Unions May Charter a Fall Tour

A bonus for credit union members! The Oak Ridge Chapter of Credit Unions proposes a chartered flight from Knoxville to Europe and back to Knoxville. Departure will be in late September and return in early October 1972.

An initial planning and information meeting is set for 7:30 p.m. Thursday, February 24, at the Shep Lauter Room of the Oak Ridge Community Center.

The ORNL, ORGDP and Y-12 credit unions belong to the Oak Ridge Chapter. Shareholders as of six months prior to flight date and members of their immediate families are eligible to take advantage of this flight.

Representatives of Trans International Airlines and Dick Anderson Group Tours, Inc. will be present to explain how your chartered flight and two week stay in Europe will be organized, financed and conducted.

If interested in the excursion, please attend the meeting to help finalize plans.

### ALL-CARBIDE

**Special Note: League secretaries and individual bowlers are requested to verify and recheck their bowling averages to be used in the upcoming All-Carbide tournament. Last year's averages are being used, which may be a little peculiar to Y-12 and ORGDP bowlers.**

Y-12er Joe Comolander led Skeet firings during January with a perfect score of 50,000, followed by Charlie Asmanes, also of Y-12, with a 48,923. Vern Raaen, ORNL, came in third with a 48,560, in the 14-man competition.

Lloyd Wyatt paces the X Table Tennis League with a single point lead over Jerry Keyes. John Butler also leads the Y League with a one-point lead over Al King. Both leagues have played five sessions.

In Carbide Family Mixed League Elaine Griffies cornered all honors with a 627 HCP series, a 241 HCP game and a 213 scratch game. Her team, the Pinsetters, rolled the high team series with a 2,352. Men's honors were split with Harold Adair's 624 HCP series and John Sewell's 252 HCP game and a 220 scratch game.

work closely with surgeons, hospital staffs, and ET's. They desire only to give help where and when it is needed and wanted.

Ostomies are far more common than most people realize. For example, there will be approximately 1,200 cases of cancer of the colon and rectum in Tennessee this year. Many will require a colostomy. Ulcerative colitis leading to an ileostomy is not rare.

Young people with ostomies have no difficulty finding mates if they have no serious emotional handicaps. They live happy lives and raise children like anyone else. There are numerous doctors, lawyers, scientists, entertainers, even athletes, who have ostomies. Most new ostomy patients are amazed at the people they meet at their first club meeting. They had never realized that an acquaintance or fellow worker was an ostomy case.

The symbol of the United Ostomy Association is the Phoenix. This bird of mythology was destroyed in fire, only to rise from the flames announcing his rebirth with a clarion call. The ostomy patient rises from the ashes of despair to the full flood of life and health.



**BOWLING HONORS**—E. W. Whitfield, recreation director, presents Century patches from the American Bowling Congress to, from left, Bill Burch and Virgil Johnson. Both men bowled one hundred over their established average in a recent Oak Ridge National Laboratory C League competition.



## SPORTS NOTES



### ORNL BOWLING

In A League play the Pour-It-Ons lived up to their name with a 2,974 high series with handicap. Taking other honors were Paul Davis of ORAU with a 709 HCP series, Bob Forde of Ten Pins with a 264 HCP game and Tom Gardner of Pour-It-Ons with a 238 scratch game.

In C League honors were split up. The Remkeys rolled a 2,974 HCP series, C. E. Collins of Timber Wolves a 639 HCP series, A. R. Olsen of Beryls a 237 HCP game and J. W. Cable of Pin Heads a 209 scratch game.

In E League Brewen with a 633 HCP series helped his team, the Dodads, to a 2,975 HCP series to garner league honors. Honors also went to Montgomery of Limits with a 240 HCP game and Casciano of Gutterfinks with a 206 scratch game.

In ORNL Ladies League the HP-ettes rolled a 2,347 to take their league's high HCP series. Long of the Bowling Aces took the honors with a 620 HCP series, a 261 HCP game and a 223 scratch game.

### ORGDP BOWLING

Jean Mooney is Bowler of the Week in Women's League with scratch scores of 192-175-165 for a 532 and a HCP score of 628. Vernice Clower rolled a high scratch game of 204 and the Bowlettes and Hits and Misses rolled HCP games of 806.

In Tuesday League honors went to D. W. Brown and M. J. Gibson for their 233 high scratch games. Brown's 257 was good for high HCP game also. E. W. Felte rolled a 638 high HCP series.

In Wednesday League Pirates copped honors with a 3,035 HCP series. Individual honors went to Tex Thrower with a 257 HCP game and Jim Park with a 638 HCP series.

### BOWLING—Y-12

The Badgers edged into front standings in the C Bowling League recently, one point ahead of the Rollmasters. Don Branson leads the individual keglers with a 243 game, 633 series, scratch, of course.

The Cougars jumped into the lead in the Y-12 Mixed League recently, posting a one point lead over the Roses 'N Thorns and the Alley Cats, with a 16-8 record. Wanda Sewell, after rolling a 222

single game, also rolled a 521 scratch series lately.

Classic bowlers find the Playboys and Smelters locked in deadly struggle at the top with a 15-5 record. J. W. Halsey and Elmer Johnson are tied for individual honors, each with a 246 single game! Bill Ladd assumes series' leads with a 617 scratch tally.

### FISHING—ORGDP



Hurd



Walters

Neil Hurd and Bucky Walters have been named "fishermen of the year" at ORGDP. Both are avid anglers and entered several fish in all divisions in the ORGDP Fishing Rodeo.

## Energy Policy Series Continue at Laboratory

The ORNL-sponsored energy policy seminars continue with interest running high in the series.

On February 24 Dean E. Abrahamson from the Center for Studies of the Physical Environment at the University of Minnesota will speak. Abrahamson is a scientist who has long been concerned with energy policies and often been critical of them.

On March 9 Harry Perry, senior specialist in the Environmental Policy Division of the Legislative Reference Service of the Library of Congress, will speak.

All seminars will begin at 3 p.m. in Central Auditorium of Building 4500 North.

The series has the following objectives: to inform the Oak Ridge community of the socio-technical issues associated with the use of energy, to understand better the roles and views of different constituencies with regard to the major energy issues, to place in perspective the various requirements which a national energy policy must satisfy and to identify ways in which ORNL can contribute to the solution of energy problems.



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## Koehler Takes Leading Role in Ridge Comedy

An original play by Herbert Appleman, "A Perfect Gentleman," will be the Oak Ridge Playhouse's next production. A comedy based on the frequently strained but always exhilarating relationship between Lord Chesterfield



Koehler

and his illegitimate son, Philip, the play will be performed on March 3, 4, 10, 11, 17 and 18 at 8:20 p.m. Playwright Appleman will come to Oak Ridge for the final week of dress rehearsals and the opening performance.

Leading the cast are ORNL's Wallace C. Koehler as the charming but dogmatic Lord Chesterfield and Michael Enos as Philip, his dermied son. Others to be seen include Betty Osborn, Marge Serrano, Roberta Keller, Carole Carter, William H. Brown, John Daugherty, Milton Lloyd, Fred Johnsson, and John McBride. The play is directed by Paul Ebert with Gill Edmonds assisting.

Ticket reservations may be made by telephoning Oak Ridge 483-1224. Student prices are in effect for all Friday presentations.

## Recycling ...

(Continued from Page 4)

Health Division collects old eye glasses for reuse by the U. S. Department of Health, Education and Welfare. Rare and precious metals are decontaminated under contract with outside vendors and returned to UCC stock. These metals are gold, silver, platinum, radium, gallium palladium, osmium, iridium and rhodium. Zinc bromide, though not a waste, requires reprocessing from time to time. Some 400 gallons were reprocessed last year at less than half the cost of new purchase.

The zenith hasn't been reached in ORNL's recycling efforts. Each week the efforts increase or change slightly to be more efficient. Recently added was the collection of glass which is contributed to the Oak Ridge effort since the Laboratory has too small a volume to sell. Recovery of silver will begin soon. When practical, wastes like paper towels and styrofoam (well over 5,000 pounds is used at ORNL per year) will be recycled.

What can you do? You can help. Be alert to recycle items from your work area whenever possible. Here's how. Return computer cards and printout to pickup centers when you have finished with them. Collapse a cardboard box when you discard it and see that it gets to a collection point. Return items which can be reused or sold through Property Sales. If you or your group can no longer use a piece of equipment, furniture, packing crate or whatever, send it to Building 7018, or phone Walt Mayott, 3-6353. If you have used items like batteries, scrap metal, or old eye glasses, don't keep them lying around your office or lab or heave them into a trash can. Send them to the proper places where they can be reclaimed.

One of the best ways to conserve resources, however, is not to waste. Whether it's power, paper, metals, chemicals, water, batteries or whatever, be thrifty. And most likely, you'll get the same results in your work. Maybe better.



**A BETTER TOMORROW**—Sharon Webb, Y-12's Personnel Department, poses with the Engineers Week poster, promoting activities next week. Sponsored by six professional societies in this area, as well as the Society of Professional Engineers, highlight of the week will be a gala banquet Friday, February 25, at 7:30, at the Oak Ridge Civic Center. Featured speaker will be Governor Winfield Dunn of Tennessee.

## Engineers Week

# Governor Scheduled to Speak At Banquet on February 25th

Tennessee's governor, Winfield Dunn, will be the speaker at a banquet to be held at the Oak Ridge Civic Center, Friday, February 25, observing National Engineers Week. Observed from February 20 through the 26 by engineering and professional technical societies across the nation, Engineers Week carries the theme in 1972: **Engineering... A Better Tomorrow through Technology.**



Gov. Dunn

Local activities planned in Oak Ridge include a free mini-equipment show, to be held in the Oak Ridge Civic Center February 18, 19. This show will be sponsored by the Oak Ridge Section of the American Society for Nondestructive Testing (ASNT) and will feature demonstrations of some of the latest advances in nondestructive testing. In addition, there will be a display of the "moon rock box" and much of the Apollo sample collection hardware which was engineered and fabricated at the Oak Ridge Y-12

from Apollo 11 and Apollo 15 will be shown at regular times during the show. Other local activities will be centered around window displays in stores by the participating societies depicting some aspect of engineering.

Following is a schedule of windows planned for the Oak Ridge area: Miller's, Instrument Society of America; Penney's, Society of Manufacturing Engineers; Music Box, Institute of Electrical and Electronic Engineers; The Knox, American Institute of Chemical Engineers; Oak Ridge Library, American Society of Metals.

Next Friday's banquet is jointly sponsored by the Knoxville and Oak Ridge societies. A reception will honor Governor and Mrs. Dunn, beginning at 6:30 p.m. Available are 600 tickets, priced at \$5 each, with most of these being divided among the participating societies. Some tickets will be available to interested members of the general public at the same price. They may be obtained from the Jackson Square Pharmacy, Jackson Square, Oak Ridge.

## ASNT Fair Is Featuring Apollo Moon Box Display

The Oak Ridge Section of the American Society for Nondestructive Testing is presenting an Educational Fair to give the residents of this area an opportunity to become more familiar with non-destructive testing and materials evaluation in science and industry.

The fair will be held February 18 from noon to 8 p.m. and February 19 from 10 a.m. to 3 p.m. at the Oak Ridge Civic Center, the Shep Lauter Room.

As an added attraction there will be an Apollo moon box display and an Apollo mission movie.

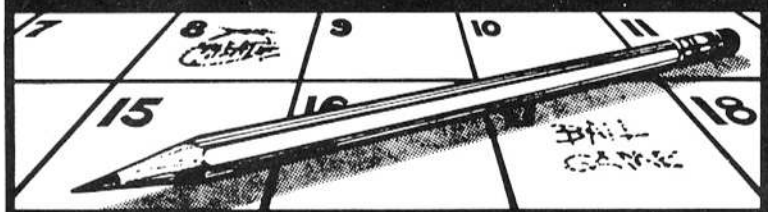
## RESA Sets Lecture

(Continued from Page 1)

will speak on "The National Attack on Cancer — Is the Time Ripe?"

RESA President Mike Wilkinson urges all former RESA and Sigma Xi members who have been inactive or have moved to this area from other localities to renew their memberships. Former members and other interested persons may contact Edward von Halle or Bill Wilcox, ORGDP; Ray Stoughton or Paul Griffin, ORNL, and David Doherty or Larry Phillips, Y-12.

## CALENDAR OF EVENTS



### TECHNICAL

#### February 18

Biology Division Seminar: Title to be announced. Alberto Monroy, Laboratorio di Embriologia Molecolare, Italy. Large Conference Room, Building 9207, 3 p.m.

Solid State Division Seminar: "Monte Carlo Studies of Cooperative Ordering in Magnetic Systems," D. P. Landau, University of Georgia. Conference Room, Building 3025, 10 a.m.

#### February 23

Metals & Ceramics Division Seminar: "The Effect of Defects on the Biaxial Stress-Rupture Properties of Stainless Steel Tubing," Roy King. East Auditorium, Building 4500N, 2:30 p.m.

Chemical Technology Division Seminar: "Lanthanide and Actinide Hydroxides," B. Weaver. Central Auditorium, Building 4500N, 3 p.m.

#### February 24

ORNL Seminar Series on Energy Policy Issues: Dean E. Abrahamson, University of Minnesota scientist who has been concerned with and often critical of existing energy policies. Central Auditorium, Building 4500N, 3 p.m.

#### March 1

Chemical Technology Division Seminar: "LMBFR Fuel Transport: Cask Design Concepts and Status of Development." Central Auditorium, Building 4500N, 3 p.m.

#### March 8

Metals & Ceramics Division Seminar: "Metallurgy of Titanium Precipitation-Hardening Alloys," J. C. Williams, North American Rockwell Science Center, California. East Auditorium, Building 4500N, 2:30 p.m.

#### March 6-8

Ecological Sciences Division Information Meeting: Oak Ridge National Laboratory.

#### March 9

ORNL Seminar Series on Energy Policy Issues: Harry Perry, senior specialist in the Environmental Policy Division of the Legislative Reference Service, Library of Congress. Central Auditorium, Building 4500N, 3 p.m.

#### March 9-10

Fourth Annual Symposium on Advanced Analytical Methods for the Clinical Laboratory: Oak Ridge National Laboratory.

### COMMUNITY

#### February 19

Grace Lutheran Church presents "The Concordia Choir." Oak Ridge High School, 8:15 p.m. Adults, Orchestra \$2, Balcony \$1.50. Students, Orchestra \$1, Balcony \$.75.

#### February 20

Art Center presents "Survey of American Painting." Film from the National Gallery of Art, 3:30 p.m. Admission free.

Art Center Film Club presents "The Passion of Anna," Ingmar Bergman, Sweden. Jefferson Junior High School, 8 p.m. Adults \$1.50, Students \$1.

#### February 26

Oak Ridge Civic Music Association presents Lili Kraus with the Oak Ridge Symphony. Oak Ridge High School, 8:15 p.m. Adults \$4, Students \$2.

#### February 29

Oak Ridge Junior and Senior High Schools Chorus Concerts. Guest conductor and pianist, Dr. and Mrs. Richard Hoffland, Millikan University. Oak Ridge High School, 7:30 p.m. Adults \$1, Students \$.50.

#### March 3

Oak Ridge Playhouse presents Herbert Appleman's "A Perfect Gentleman." Oak Ridge Playhouse, 8:20 p.m. Other performances on March 4, 10, 11, 17, and 18.